**Multiple Choice Questions**

Which of the following is are ways that plants are used in society?

1. Pharmaceuticals
2. Perfumes
3. Clothing
4. All of the above

What deficiency usually results in scurvy?

1. Vitamin A
2. Vitamin B
3. Vitamin C
4. Vitamin D

Which of the following is not an artificial selection strategy used in plants?

1. Mass selection
2. Pure line selection
3. Crossbreeding
4. Cloning

Which of the following is not considered a nutrient for plants?

1. Nitrogen
2. Phosphorous
3. Potassium
4. Sodium

Which of the following processes does not lower plant biodiversity?

1. Primary succession
2. Artificial selection
3. Monocultures
4. Bioaccumulation

**Short Answer Questions**

1. There is a growing debate around whether or not Canada should continue to allow farmers to grow genetically modified crops. State your opinion on this issue and give 3 supporting reasons that support your view.

**Answer**:

|  |  |
| --- | --- |
| **In favour** | **Against** |
| * Delay ripening * Increased resistance to insect pests, fungus , and disease * Delay rotting, to promote longer shelf life * Increased yields per acre at a reduced cost * Increased resistance to drought or frost * Resistance to herbicides * Reduction of soil erosion | * Allergies * Toxic health risks * Harm to non-target species * New genes that render the seeds of traditional plants infertile * Create super weeds that are adapted to compete with engineered plant species * Crop pests that develop resistance and require more chemical control |

2. The following graph tracks the amount of corn harvested from Old McDonald’s farm.

This particular farm has only grown corn over the past 5 recorded years. This is because there has been a huge demand for corn in the market. Analyze the graph and suggest a possible explanation to what is causing the trend you see in the graph. Suggest 2 possible strategies to how the farmer can improve crop production in the future.

**Answer**: The farm is employing monocultures as its agricultural practice. Since this farm is only growing corn, the drop in crop production over the years is due to decreasing soil fertility. The corn crop has been exhausting the same type of nutrients from the soil, without giving the soil an opportunity to replenish the assimilated nutrients. Two possible strategies that can help improve this farm’s corn production would be to try crop rotation and use fertilizer to replenish the soil’s nutrients that has used up by the corn.